

Unit 6 REVIEW PACKET

Directions: In the box provided next to each target section, put an (S) if you were able to complete the section by *yourSELF*, an (H) if you received a *minimal* amount of *HELP* from me, a classmate, or another source, or a (D) if you felt the section was *DIFFICULT* and required you to get *a lot* of help. This will help provide you by giving you feedback as to what topics you should be focusing on as you prepare for the test.

**TARGET A**

For #1 – 4, simplify the ratio. Be sure to check your units before you simplify!

1) $\frac{4oz}{2qt}$

2) $\frac{2cups}{3gallons}$

3) $\frac{10minutes}{1hour}$

4) $\frac{8ft}{9inches}$

For #5 – 8, perform the indicated unit conversion.

5) 45 ft to yd

6) 15 lb to kg

7) 10 mi to ft

8) 1000 cm to m

9) A picture has a width of 6 inches. An enlargement of the picture has a width of 3 feet. Find the ratio of the picture to the enlargement.

10) The ratio of the angles in a triangle is 3:7:10. Find the measure of each of the angles.



TARGET B

For #11-15, solve each proportion. Round decimals to the nearest hundredths place.

11) $\frac{2z}{27} = \frac{3z+9}{81}$

12) $\frac{x+2}{3} = \frac{8}{9}$

13) $\frac{x+2}{4} = \frac{x-4}{2}$

- 14) An oil painting has a length of 60 inches and a width of 30 inches. A postcard of the painting has a length of 2.5 inches. What is the width of the postcard?

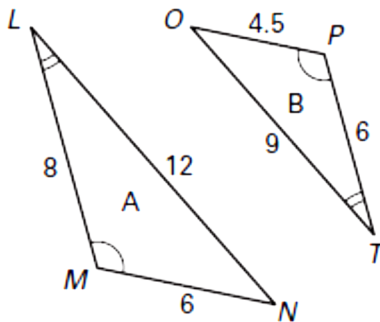
- 15) A carpet cleaning solution calls for a mixture of 3 ounces of cleaner per 2 quarts of water. You use a total of 13 quarts of water in the mixture. How much cleaning solution do you use?



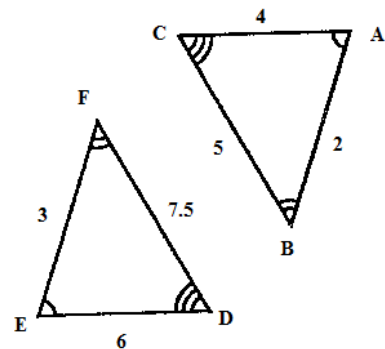
TARGET C

For #16-17, write the similarity statement and find the scale factor.

16)



17)



$\triangle LMN \sim$ _____, scale factor _____

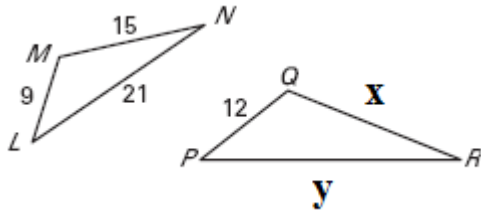
$\triangle ABC \sim$ _____, scale factor _____



TARGET D & F

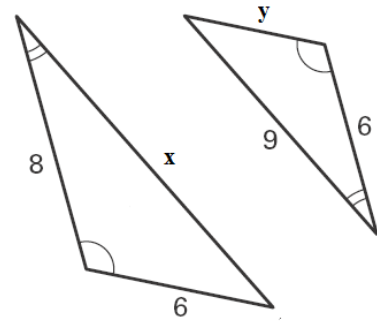
For #18 - 22, solve for x and/or y for the similar triangles.

18) $\triangle LMN \sim \triangle PQR$



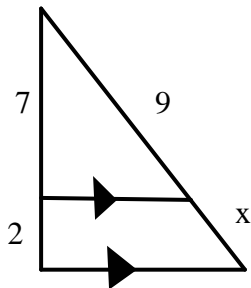
x = _____ y = _____

19)



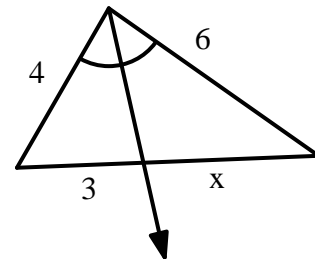
x = _____ y = _____

20)



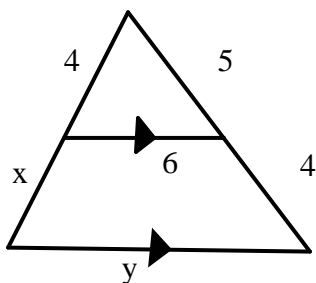
x = _____

21)



x = _____

22)



x = _____

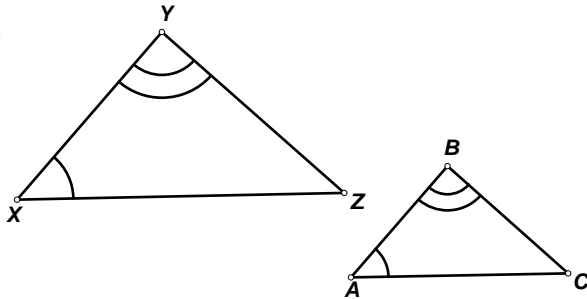
y = _____



TARGET E

For #23-28 , decide what method (AA~, SSS~ or SAS~) you can use to prove the triangles are similar. Then complete the similarity statement.

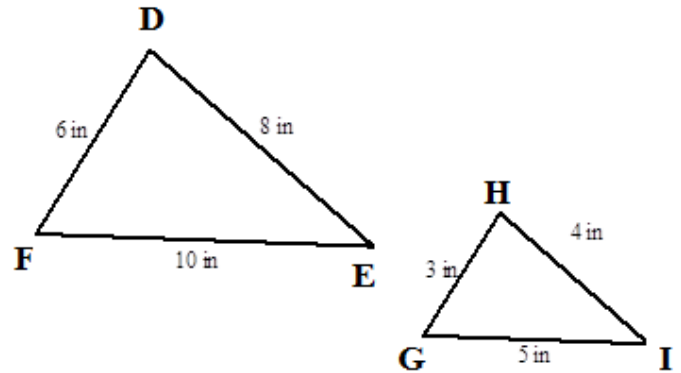
23)



AA~ SSS~ SAS~

$\triangle XYZ \sim \triangle$ _____

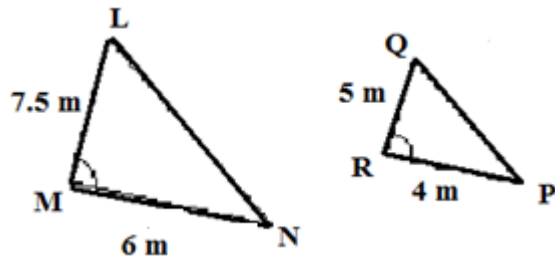
24)



AA~ SSS~ SAS~

$\triangle DEF \sim \triangle$ _____

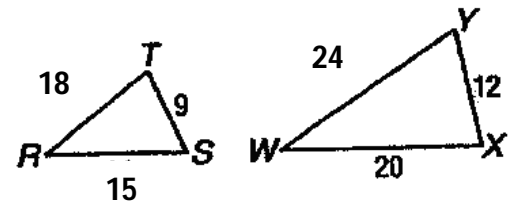
25)



AA~ SSS~ SAS~

$\triangle LMN \sim \triangle$ _____

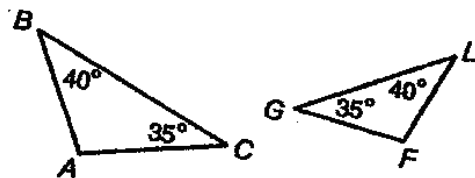
26)



AA~ SSS~ SAS~

$\triangle RTS \sim \triangle$ _____

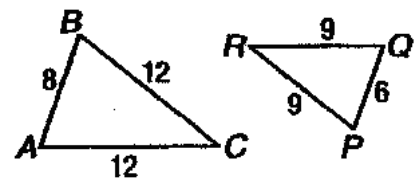
27)



AA~ SSS~ SAS~

$\triangle ABC \sim \triangle$ _____

28)



AA~ SSS~ SAS~

$\triangle ABC \sim \triangle$ _____